Substitute for Form 1449/PTO

**INFORMATION DISCLOSURE STATEMENT BY APPLICANT**
(Use several sheets if necessary)

| ATTY DOCKET NO. 8676-042 | APPLICATION NO. 10/629,810 | |
|---|---|---|
| APPLICANT: Stephen A. Tarin | | |
| FILING DATE: July 28, 2003 | ART UNIT: 2168 | CONF. NO.: 7914 |

## U.S. PATENT DOCUMENTS

| EXAMINER'S INITIALS* | | DOCUMENT NUMBER | DATE MM/DD/YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
|---|---|---|---|---|---|
| MD | A01 | US 5,379,422 | 01/03/1995 | Antoshenkov | |
| MD | A02 | US 5,388,259 | 02/07/1995 | Fleischman, et al. | |
| MD | A03 | US 5,504,885 | 04/02/1996 | Alashqur | |
| MD | A04 | US 5,542,073 | 07/30/1996 | Schiefer, et al. | |
| MD | A05 | US 5,734,887 | 03/31/1998 | Kingberg, et al. | |
| MD | A06 | US 5,761,652 | 06/02/1998 | Wu, et al. | |
| MD | A07 | US 5,787,279 | 07/28/1998 | Rigoutsos | |
| MD | A08 | US 5,797,000 | 08/18/1998 | Bhattacharya, et al. | |
| MD | A09 | US 5,799,312 | 08/25/1998 | Rigoutsos | |
| MD | A10 | US 5,802,525 | 09/01/1998 | Rigoutsos | |
| MD | A11 | US 5,855,019 | 12/29/1998 | Bhargava, et al. | |
| MD | A12 | US 5,956,706 | 09/21/1999 | Carey, et al. | |
| MD | A13 | US 5,963,936 | 10/05/1999 | Cochrane, et al. | |
| MD | A14 | US 6,088,691 | 07/11/2000 | Bhargava, et al. | |
| MD | A15 | US 6,138,111 | 10/24/2000 | Krishna | |
| MD | A16 | US 6,199,099 | 03/06/2001 | Gershman, et al. | |
| MD | A17 | US 6,330,554 | 12/11/2001 | Altschuler, et al. | |
| MD | A18 | US 6,374,263 | 04/16/2002 | Bunger, et al. | |
| MD | A19 | US 6,484,179 | 11/19/2002 | Roccaforte | |
| MD | A20 | US 6,272,487 | 8/7/2001 | Beavin, et al. | |
| MD | A21 | US 5,794,228 | 8/11/1998 | French, et al. | |
| MD | A22 | US 5,701,453 | 12/23/1997 | Maloney, et al. | |
| MD | A23 | US 5,819,086 | 10/6/1998 | Kroenke | |
| MD | A24 | US 6,006,219 | 12/21/1999 | Rothschild | |

## FOREIGN PATENT DOCUMENTS

| EXAMINER'S INITIALS* | | Country Code, Number, Kind of Code (if known) | DATE MM/DD/YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | TRANSLATION YES | NO |
|---|---|---|---|---|---|---|---|
| | B01 | | | | | | |
| | B02 | | | | | | |

| EXAMINER NYJD-1632050v1 | /Mahesh Dwivedi/ | DATE CONSIDERED | 10/13/2006 |
|---|---|---|---|

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## NON PATENT LITERATURE DOCUMENTS (include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book ,magazine, journal, etc.), date, page(s)s, volume, publisher, city and/or country where published., etc.)

| EXAMINER'S INITIALS* | | |
|---|---|---|
| MD | C01 | Abdelguerfi, M et al., "Computer Complexity of Sorting and Joining Relations with Duplicates", IEEE Transaction on Knowledge And Data Engineering, Volume 3, No. 4, December 1991, Pages 496-503 |
| | C02 | Fiat et al., 1991, "An Implicit Data Structure for Searching a Multikey Table in Logarithmic Time," Journal of Computer and System Sciences vol. 43, 406-424 |
| | C03 | Fiat et al, 1988, "Storing and Searching a Multikey Table," ACM, pp. 344-353 |
| | C04 | Knuth, D. E., 1998, "The Art of Computer Programming," 2d Ed., vol. 3, 5, 584, Addison-Wesley Publishing Company |
| | C05 | Lehman et al., August, 1986, "A Study of Index Structures for Main Memory Database Management Systems," Proc. 12th Int'l Conf., Very Large Data Bases, Kyoto, Japan, pp. 294-303 |
| | C06 | Lehman et al., 1986, "Query Processing in Main Memory Database Management Systems," ACM, pp. 239-250 |
| | C07 | Munro, 1987, "Searching a Two Key Table Under a Single Key," ACM pp. 383-387 |
| | C08 | Nevergelt et al., 1984, "The Grid File: An Adaptable, Symmetric Multikey File Structure," ACM, pp. 108-124 |
| | C09 | Yao, July 1981, "Should Tables Be Sorted?," Journal of the Assoc. of Computing Machinery, vol. 28, no. 3, pp. 615-628 |
| | C10 | Babb,"Implementing a Relational Database by Means of Specialized Hardware," ACM Transactions on Database Systems, vol. 4, no.1, March 1979, pp. 1-29 |
| | C11 | Goldstein et al., "The MacAIMS Data Management System," Record of the 1970 ACM SICFIDET Workshop on Data Description and Access, Nov. 15-16, 1970, pp. 201-229 |
| | C12 | Goldstein et al, "Database Management with Sequence Trees and Tokens," IEEE Transactions on Knowledge and Data Engineering, vol. 9, no. 1, Jan-Feb 1997, pp. 186-192 |
| | C13 | Sharman, "Update-By-Dialogue: An Interactive Approach to Database Modification," ACM SIGMOD International Conference on Management of Data, Toronto, Canada, Aug. 3-5, 1977 |
| | C14 | Strnad, "The Relational Approach to the Management of Data Bases," Information Processing 71, Proc. Of IFIP Congress 71, vol. 2, Ljubljana, Yugoslavia, Aug. 23-28, 1971, published 1972, pp. 901-904 |
| | C15 | Titman, "An Experimental Data Base System Using Binary Relations," Database Management, North-Holland Publishing Company, 1974, pp. 351-360 |
| MD | C16 | Chinese Patent Application No. 99810695.X First Office Action dated July 12, 2002 |
| MD | C17 | Chinese Patent Application No. 99810695.X Second Office Action dated August 5, 2005 |
| MD | C18 | PCT/US99/15431 International Search Report dated October 22, 1999 |
| MD | C19 | PCT/US99/15431 International Preliminary Examination Report dated March 29, 2000 |
| MD | C20 | PCT/US01/47678 International Search Report dated March 29, 2002 |
| MD | C21 | PCT/US01/47678 International Preliminary Examination Report dated August 9, 2002 |

NYJD-1632050v1

| EXAMINER | /Mahesh Dwivedi/ | DATE CONSIDERED | 10/13/2006 |
|---|---|---|---|

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

| | LIST OF REFERENCES CITED BY APPLICANT (Use several sheets if necessary) | ATTY DOCKET NO. 8676-042 | APPLICATION NO TBA |
|---|---|---|---|
| | | APPLICANT Stephen A. Tarin | |
| | | FILING DATE herewith | GROUP 2172 |

## U.S. PATENT DOCUMENTS

| *EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|---|---|---|---|---|---|---|---|
| MD | A01 | 6,018,734 | 01/25/00 | Zhang et al. | | | |
| MD | A02 | 6,006,219 | 12/21/1999 | Rothschild | | | |
| MD | A03 | 5,983,232 | 11/09/99 | Zhang | | | |
| MD | A04 | 5,966,709 | 10/12/99 | Zhang et al. | | | |
| MD | A05 | 5,918,225 | 06/29/1999 | White et al. | | | |
| MD | A06 | 5,838,965 | 11/1998 | Kavanagh et al. | | | |
| MD | A07 | 5,797,136 | 08/1998 | Boyer et al. | | | |
| MD | A08 | 5,794,229 | 08/11/1998 | French et al. | | | |
| MD | A09 | 5,713,014 | 01/27/98 | Durflinger et al. | | | |
| MD | A10 | 5,701,461 | 12/1997 | Dalal et al. | | | |
| MD | A11 | 5,692,178 | 11/1997 | Shaughnessy | | | |
| MD | A12 | 5,675,779 | 10/07/1997 | Doktor | | | |
| MD | A13 | 5,649,181 | 07/15/97 | French et al. | | | |
| MD | A14 | 5,611,076 | 03/11/97 | Durflinger et al. | | | |
| MD | A15 | 5,592,667 | 01/07/97 | Bugajski | | | |
| MD | A16 | 5,560,006 | 09/24/96 | Layden et al. | | | |
| MD | A17 | 5,555,388 | 09/1996 | Shaughnessy | | | |
| MD | A18 | 5,546,575 | 08/13/1996 | Potter et al. | | | |
| MD | A19 | 5,495,608 | 02/27/96 | Antoshenkov | | | |
| MD | A20 | 5,414,834 | 05/09/95 | Alexander et al. | | | |
| MD | A21 | 5,412,797 | 05/02/95 | Rubin | | | |
| MD | A22 | 5,276,868 | 01/04/94 | Poole | | | |
| MD | A23 | 5,201,046 | 04/06/93 | Goldberg et al. | | | |
| MD | A24 | 5,010,478 | 04/23/91 | Deran | | | |
| MD | A25 | 4,858,146 | 08/1989 | Shebini | | | |
| MD | A26 | 4,479,196 | 10/23/84 | Ferrer et al. | | | |
| MD | A27 | 4,468,732 | 08/28/84 | Raver | | | |

## FOREIGN PATENT DOCUMENTS

| | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | TRANSLATION | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | YES | NO |
| | B01 | | | | | | | |
| | B02 | | | | | | | |

## OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

| C01 | "ERDB, Entity-Relation Database," ERDB Website and ERDB Manual, www.ataindy.com, copyright 1998, Automated Technology |

| | | |
|---|---|---|
| | | Associates |
| | C02 | "Monet Source Code," dated Jan. 8, 1996, as appears on www.cwi.nl/~monet/srcdoc.html as of Feb. 5, 1999 |
| | C03 | "Monet Performance," www.cwi.nl/~monet/performance.html, last modified Sept. 20, 1995 |
| | C04 | Boncz et al., "The Drill Down Benchmark," www.cwi.nl/~monet/papers.html, appears in Proceedings of the 24th VLDB Conference New York, USA, 1998 |
| | C05 | Boncz et al., "Flattening an Object Algebra to Provide Performance," www.cwi.nl/~monet/papers.html, appears in 14th International Conference on Data Engineering, Feb. 23-27, 1998, Orlando, Florida, USA |
| | C06 | Boncz et al., "Monet and Its Geographic Extensions: a Novel Approach to High Performance GIS Processing," as appears on www.cwi.nl/~monet/papers.html as of Feb. 5, 1999 |
| | C07 | Boncz et al., "Monet An Impressionist Sketch of an Advanced Database System," www.cwi.nl/~monet/papers.html, appears in Basque International Workshop on Information Technology, Data Management Systems, San Sebastian, Spain, July 19-21, 1995 |
| | C08 | van den Berg et al., "Monet Meets 007," Nov. 3, 1995, as appears on www.cwi.nl/~monet/papers.html as of Feb. 5, 1999 |
| | C09 | Kersten et al., "A Data Cube Algebra Engine for Data Mining," as appears on www.cwi.nl/~monet/papers.html as of Feb. 5, 1999 |
| | C10 | van den Berg, "Dynamic Query Processing in a Parallel Object-Oriented Database System," Ph.D. Thesis, published at CWI, 1994, as appears on www.cwi.nl/~monet/papers.html as of Feb. 5, 1999 |
| | C11 | van den Berg et al., "Analysis of a Dynamic Query Optimization Technique for Multi-Join Queries," as appears on www.cwi.nl/~monet/papers.html as of Feb. 5, 1999 |
| | C12 | Angara website, www.angara.com, copyright 1998, Angara Database Systems, Inc. |
| | C13 | Cache website, www.intersys.com, copyright 1996, 1997, 1998, InterSystems Corporation |
| | C14 | "The Dali Main-Memory Storage Manager," Dali website, www.bell-labs.com/project/dali, copyright 1996, as appears on the website as of Feb. 5, 1999 |
| | C15 | Jagadish et al., "Dali: A High Performance Main Memory Storage Manager," www.bell-labs.com/project/dali, appears in Proceedings of the 20th VLDB Conference Santiago, Chile, 1994 |
| | C16 | Bohannon et al., "Recoverable User-Level Mutual Exclusion," as appears on www.bell-labs.com/project/dali as of Feb. 5, 1999 |
| | C17 | Bohannon et al., "Logical and Physical Versioning in Main Memory Databases," www.bell-labs.com/project/dali, appears in Proceedings of the Conference on Very Large Database, 1997 |
| | C18 | "Times Ten Performance Software," Times Ten website, www.timesten.com, copyright 1997, 1998 |
| | C19 | "Titanum Database Engine Technical Synopsis" copyright 1998, Micro Data Base Systems, Inc. |
| | C20 | Herrin et al., "Schema and Tuple Trees: An Intuitive Structure for Representing Relational Data," www.hsdi.com/qddb/article2, appears in Computing Systems, vol. 9, no. 2, copyright 1996 by the USENIX Association |
| | C21 | Herrin et al., "An ASCII Database for Fast Queries of Relatively Stable Data," www.hsdi.com/qddb/article2, appears in Computing Systems, vol. 4, no. 2, copyright 1991 by the Regents of the University of California |
| | C22 | Date, C. J., "An Introduction to Database Systems," 3rd Ed., pp.33-61, Addison-Wesley Publishing Company |
| | C23 | Date, C.J., August, 1995, "An Introduction to Database Systems," 6th Ed., pp. 1-51, 710-760, Addison-Wesley Publishing Company |
| | C24 | Batory, D.S., "On Searching Transposed Files," ACM TRANSACTIONS ON DATABASE SYSTEMS, vol. 4, no. 4, December 1979, pp. 531-544 |
| | C25 | Batory et al., "A Unifying Model of Physical Databases," ACM TRANSACTIONS ON DATABASE SYSTEMS, vol. 7, no. 4, December 1982, pp. 509-539 |
| | C26 | Eggers et al., "Efficient Access of Compressed Data," IEEE, 1980, pp. 205-211 |
| | C27 | Eggers et al., "A Compression Technique for Large Statistical Databases," IEEE, 1981, pp. 424-434 |
| | C28 | Valduriez, P., "Join Indices," ACM TRANSACTIONS ON DATABASE SYSTEMS, vol. 12, no. 2, June 1987, pp. 218-246 |
| | C29 | Olken et al., "Rearranging Data to Maximize the Efficiency of Compression," ACM, 1986, pp. 78-90 |

| EXAMINER | /Mahesh Dwivedi/ | DATE CONSIDERED | 10/13/2006 |
|---|---|---|---|

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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